CORRESPONDENCE.

The Concealing Coloration Question.

EDITOR OF 'THE AUK':

Dear Sir:— I rise to a question of personal privilege. In the last number of 'The Auk' you as Editor and two correspondents take exception to certain expressions and certain statements contained in my paper on the Concealing Coloration question in the issue for October, 1912. Such of my language as is declared unparliamentary I gladly withdraw, and for it I tender my formal apologies. As a matter of fact, I did not realize that I was employing a different kind of language from what had been used by others in this discussion. The Editor of 'The Auk,' to be sure, cannot be held responsible in any way for Mr. Roosevelt's paper, which was published elsewhere, but at least one passage in that of Drs. Barbour and Phillips seems to me much more exceptionable than anything that my paper contained. However, bad examples are best not followed, and it would have been better to leave the facts to speak for themselves.

Dismissing the question of the objectionable expressions,— which, of course, I must regret since they have given offense to men whose good opinion I value highly,— I will take up the more serious counter-charges which have been made against me in defense of Mr. Roosevelt. And first I must plead guilty to an error of judgment in grouping 'misquotations,' etc., with 'pieces of faulty reasoning.' Never having had any notion of accusing Mr. Roosevelt of *intentional* misquotation, I carried all these things in my own mind as instances of carelessness and the like and assigned to each class an approximately equal degree of importance. I supposed that I was not including anything debatable in this category, but that the points I made would be instantly seen. In this it seems I was mistaken, and perhaps I gave my readers credit for a fuller knowledge of Mr. Thayer's views than they possessed. I now see my error in including two radically different classes of criticisms in the same category, and regret it exceedingly since it has apparently made a false impression on some readers. As a matter of fact, that sentence might quite as well have been omitted entirely, for I was willing to rest my case on the particular instances I cited.

And now I propose to prove to your entire satisfaction that the two examples of misquotation, or misapprehension, which you say 'cannot be so regarded' are actually what I have asserted them to be. You say: "Mr. Roosevelt was in the first instance not quoting Mr. Thayer verbatim regarding the crouching hare, and merely put in quotation marks some of Mr. Thayer's expressions. What Mr. Roosevelt was pointing out was that in one statement Mr. Thayer regards the running hare as obliterated in the sight of creeping animals, which have their eyes below the level of the hare's tail, while in another statement he regards the crouching hare as boldly conspicuous in the sight of the same class of animals, and this is surely what Mr. Thayer says." Now, I think that if any unbiased person will

read carefully the legend to Fig. 103 of Mr. Thayer's book and the text on page 153, which seem to be the only places in the book pertinent to the matter in hand, he will agree with me that this is a very ingenious explanation but hardly tenable. To assist readers in pursuit of the real facts in the case, I will point out that the words 'quadruped pursuer' do not occur on page 153, while they do occur in the legend to Fig. 103, only a few lines away from the statement in regard to the conspicuousness of the crouching hare 'when seen from the position of a mouse or cricket,' but in connection with the white rump of the leaping hare, and, so far as I can see, in no other place in the whole book. Now one can see in this proximity a very natural explanation of how a careless reader could read one expression in place of the other. If this explanation is incorrect, why, I ask, did Mr. Roosevelt use quotation marks for the expression 'quadruped pursuer'? It is commonplace enough in itself, and no one would think of putting it inside quotation marks except for some special purpose. Is it not obvious that Mr. Roosevelt thought he was virtually quoting Mr. Thayer's entire statement about the crouching hare? If he deliberately substituted the words 'quadruped pursuer' for 'mouse or cricket,' why did he not indicate that he was only drawing an inference, not making a quotation or even a paraphrase from Mr. Thayer, and why did he not use the term 'terrestrial enemies,' which he found ready to hand on page 153? But that Mr. Roosevelt has misread Mr. Thayer on this point is proved beyond a peradventure, it seems to me, by the fact that he goes on to say, "If a sitting rabbit is 'boldly conspicuous' to an animal on a level with it, then all of Mr. Thayer's theories go by the board at once, and all animals are always 'boldly conspicuous,' to their foes." Now Mr. Thayer did not say that the crouching hare was conspicuous to an animal, 'on a level with it' but 'from the position of a mouse or cricket,' which animals, of course, would look up at the hare and not view it from the same level. Mr. Roosevelt's attempt to show here that Mr. Thayer is inconsistent is surely a conspicuous failure, is it not? The trouble is that Mr. Roosevelt has in this and the other instance of misquotation, or misapprehension,— to which I shall proceed forthwith, — shown a signal lack of understanding of Mr. Thayer's contentions. If he had approached the book with a reasonable desire to find what there was of good in it, he would never have entertained the notion that Mr. Thayer regarded any crouching animal as conspicuous (in the long run) to its foes,— as if it were necessary for an animal to stand up in order to be obliterated. The whole argument of Mr. Thayer's book is in the opposite direction. It seems plain that Mr. Roosevelt not only misquoted Thayer's words in this instance but failed entirely to grasp the larger meaning of his book.

Now as to the other misreading of which I accuse Mr. Roosevelt, I must admit that, *as you put the case*, I may seem to have misjudged him. You will notice, however, on referring again to the passage you quote from Mr. Roosevelt, that though your footnote asserts that it is quoted verbatim, *you have omitted the very clause against which my criticism was directed!* That you are not unacquainted with the custom of inserting points to

indicate omissions is shown by the quotation thus abridged on the following page, and you must also be aware that it is not permissible to omit any vital part of a quotation, even though the omission be so indicated (otherwise the points might be substituted for such a word as 'not,' for instance, and the quotation be made to read very differently from the original). This failure to quote the passage actually verbatim, since it has resulted in a serious misrepresentation of my side of the case, must be regretted, I am sure, as much by you as by me. What Mr. Roosevelt really says in the passage referred to — which you will find correctly quoted in my paper — is, "Mr. Thayer insists that the animal escapes observation, *not because its colors match its surroundings*, or because it sits motionless like a stump." etc. You omitted the words I have italicized and, as I have said, these were the very words I attacked. The omission was purely accidental, of course, for I am far from agreeing with Mr. Thomas Barbour that 'a misquotation would probably be wilful' (Auk, XXX, 82), but it was certainly unfortunate.

I think that you will now admit that my point against Mr. Roosevelt in this matter was well taken, but I will seize this opportunity to make the point so clear that no reader can fail to see it. To that end I will quote the same passage from Mr. Thayer's book which you quoted, condensed in the same way, but will italicize only certain words in it instead of the entire passage: "The reader. . . . is now in a position to perceive the fallacy of the statement prevalent in former years and still made by certain writers, that a *protectively colored* animal of the type described above escapes detection because being of a dull brown color like the ground and the bushes, it looks when it sits motionless like a clod or a stump or some such inanimate thing. . . . The *protectively colored* animal, on the other hand, is as it were obliterated by its [= his] countergradation of shades. . . . If these animals were *merely* brown or gray like clods or stumps they would not be concealed, because their structural forms are too distinct, and the eyes of enemies are keen to detect their characteristic modelling and outlines. On the other hand, a perfect shade gradation, even of some rankly brilliant color, *would go far toward* concealing an animal." That is what Mr. Thayer says. Now, what does Mr. Roosevelt say? I will quote him again, verbatim, as I did in my paper, but italicizing the crucial portions: "Mr. Thayer insists that the animal escapes observation, *not because its colors match its surroundings*, or because it sits motionless like a stump, or clod, or some such inanimate thing, but *purely* because of its shading, which he says is rendered obliterative by the counter-gradation of shades." I might be content to let these two passages stand in the form of a 'deadly parallel', but experience teaches me that it is safer to make assurance doubly sure. I will draw attention again, therefore, to the fact that it is the *protectively colored* animal that is, according to Mr. Thayer, obliterated by its countershading, and other animals achieve only an approximation to that condition, for 'going far toward' concealment is by no means the same as reaching it. And it cannot be contended that in employing the words

'protectively colored' Mr. Thayer was writing loosely and had reference to the countershading itself. Mr. Thayer's book is not written in a loose way. It is a closely written book, on the contrary, and the words are chosen carefully. Mr. Thayer was laying stress on the office of countershading in the passage quoted. It doubtless never occurred to him that it would be necessary to argue for the efficacy of color-matching in concealment, nor could he have foreseen that he would be accused of ignoring it. If he had been arguing with any one who had the notion as to the all-powerfulness of countershading that Mr. Roosevelt has accused him of, he would doubtless have turned his statement about and have said that the countershaded animal is obliterated by its protective coloration, and that even without the countershading the background-matching 'would go far toward concealing an animal.'

You took an unusual course, Mr. Editor, in undertaking to apologize editorially for these two charges of mine against Mr. Roosevelt. Was it really so necessary? If you had been as intent on understanding Mr. Thayer as you have been on defending Mr. Roosevelt, might you not have reached a different conclusion as to the justice of my charges?

As to Mr. Chapman's communication, it seems to me that he is unnecessarily alarmed for the reputation of the bird-photographers. When I ventured the opinion that "the birds in most photographs do not appear at all as they would under average conditions in their natural surroundings," I had reference solely to this matter of conspicuousness. In general I think that bird photographs are of inestimable value to the student, since they show him some things which he could not possibly learn without them, and nothing could have been farther from my thoughts than to charge photographers with doing violence to nature in order to prove a point or make a pretty picture. It needs no extended argument, however, to prove that a bird in a picture, where the observer's eye is inevitably directed towards it, is in the nature of things much more easily to be seen than in the landscape out of doors,— as a general thing, I mean, for there are doubtless exceptions. Mr. Chapman himself says that "no doubt many bird photographs are made with the object of displaying their subject to the best advantage." I think he might have said 'most' instead of 'many' and still have kept within the bounds of truth, for is not that really the aim of most bird photographs,— to show the bird in its natural surroundings as clearly and completely as possible? And such photographs are so far from being 'lacking in scientific value' that their scientific value depends in great measure on their clearness in detail. When I said that the photographer avoided subjects that were obscured, I meant, of course, when he had before him a choice of individuals of the particular species he was desirous of photographing, and doubtless such choice is often unconscious. (Exception should perhaps be made of some of those "puzzle pictures" referred to by Mr. Chapman, where the definite object is to show the inconspicuousness of the bird.) I believe that photographers regard it as legitimate to cut away interfering twigs, etc., in order to reveal a

nesting bird, and this practice cannot be objected to, provided a statement is made that this was done; and yet in those cases the bird is undoubtedly rendered more conspicuous than it is under entirely natural conditions. So also with any bird that nests in the open, away from grass and foliage, the necessary nearness of the camera makes the bird inevitably more conspicuous, does it not? than it would be at a little distance. Now my contention — and I still think it a sound one — is that while some birds (as the woodcock) may be inconspicuous even under the disadvantage of occupying a comparatively large proportion of the field of view in a photograph, it is not sound reasoning to assert that all birds which are conspicuous in photographs are therefore necessarily so in nature. I see, however, that I shall have to acquit Mr. Roosevelt of any unusual degree of inaccuracy in this connection, since so distinguished a field ornithologist as Mr. Chapman supports him. As a matter of fact, though Mr. Chapman has appropriated my words 'inaccurate' and 'slap-dash' exclusively to the single instance of the photographs, this was but one of a number of cases which I thought showed these qualities in the aggregate. It stood first in the list because it came first in Mr. Roosevelt's paper.

Please understand that I am not now saying that Gannets, Murres, Guillemots, etc., are inconspicuous in the field, but simply that photographs alone cannot prove their conspicuousness. For one thing, it appears to me very probable that birds of large, bold patterns, such as most of these rock-nesting birds wear, need a greater distance to make operative whatever concealing power their coloration may have, and that birds that would appear conspicuous from the point of view of the camera might be by no means conspicuous at a greater, though not a great distance.

I have read with interest Mr. Thomas Barbour's latest contribution to this subject of Concealing Coloration (Auk, XXX, 81–91) and I am glad to see that he thinks he can distinguish common sense from superstition. I dare say, however, that many superstitious persons have been equally sure of their own common sense. The chief difficulty with Mr. Barbour appears to be that he does not perceive that common sense is a subjective quality and that it makes all the difference in the world whose common sense it is — whether that of a well-informed person like himself or Mr. Darwin (whom I quoted on the subject) or that of many a worthy day laborer who does n't know the meaning of the word 'science.' He does not, however, dispute my contention that something besides common sense is needed in discussing scientific questions and that there is such a thing as trusting it too implicitly, which after all was the only point I wished to make.

Now, taking up Mr. Barbour's criticisms seriatim and dealing with them as briefly as possible, after passing over the matter of the 'fifty instances,' etc., in which I have already confessed myself at fault in a certain measure, I come first to his statement that "a bird can be conspicuous in shape by being like a Scissor-tailed Flycatcher," which is certainly begging the question with a vengeance. I freely confess I have never seen a

Scissor-tailed Flycatcher in life, and I should very much appreciate it if Mr. Barbour, who has enjoyed that inestimable advantage, would take pity on my "ignorance," — of just how one of these birds looks in its native haunts,— which is, of course, profound, and explain what makes it so conspicuous to him. I strongly mistrust that he is thinking of his own interest in seeing a bird of so *unusual* a shape rather than of the actual conspicuousness of the bird as a mere bird, an article of food for a predatory animal. For all I know, the Scissor-tailed Flycatcher may be a conspicuous bird in the field, but I venture to guess that if that is the case the reason will be found in its coloration and not in its form. As to the case of the cross fox, I am not now prepared to dispute Mr. Barbour's statement and I will therefore concede him and Mr. Roosevelt that one point! I think I can afford to, and still retain the best of the argument on these disputed cases. As to the possibility of any two species living under precisely the same conditions, I emphatically disagree with Mr. Barbour. Will he deny specifically that a difference in habit constitutes a difference in conditions? As to my opinion of the all-powerfulness of natural selection, he is certainly drawing on his imagination, for nowhere in my paper will he find any such opinion, expressed or implied. He has doubtless forgotten that at one point I argued for sexual selection and that I referred to Mr. Beebe's experiments, which have proved that moisture can virtually turn one species into another. I have no doubt, too, that species have occasionally arisen from mutations. The theorem of Le Chatelier, also, may be applicable, as the chemist W. D. Bancroft has suggested. I am willing, however, to rest on natural selection as the *chief* factor in speciation until a more plausible substitute is offered than has yet appeared.

As a parting fling, Mr. Barbour attributes to me a "desire to simply bolster up the arguments of a friend." In reply to this I must refer the reader to my already fully stated explanations of the object of my paper, and add that, though I should be proud to call Mr. Thayer my friend, my personal acquaintance with him is really very slight, and if I had followed the calls of friendship only, I should have been led in quite another direction. The paper was written entirely of my own motion, without consultation with Mr. Thayer, who never saw it till after it was published, and I alone am responsible for it.

Of the eight counts of my indictment against Mr. Roosevelt, two remain undisputed, and of the other six I think the present letter makes good my claims for all but a single and relatively unimportant one. I should also like to call attention to the fact that of the nineteen pages of my paper only four are devoted to adverse criticism of Mr. Roosevelt.

I am speaking to a question of personal privilege, and though on many accounts I should like to say something more on the larger and infinitely more important question of Concealing Coloration, I shall not stray from the point except to ask your indulgence for a few closing words of an impersonal nature addressed directly to the floor. I beg American ornithologists to study and experiment along these lines for themselves. I feel

very strongly that, whatever the final judgment upon Mr. Thayer's theories may be,— if there ever is a final judgment! — it will not be hastened by ignoring his work or by refusing to listen to his evidence. You will have to give up some preconceived ideas, well fortified behind 'common sense' though they may appear to be. You will have to admit among other things that, as the sky overhead is blue, the skyshine on the snow is blue, that the sky is lighter at the horizon than at the zenith, and that on a moonless night the sky is the lightest and therefore the whitest object to be seen. When you have examined Mr. Thayer's evidence impartially and understandingly, and have accepted the most of it, as I am sure you will do, then you will be in a much better position to arrive at a proper conclusion in regard to his theories than some of his most active critics are now in. I thank you, Mr. Editor and gentlemen.

Yours very truly,

FRANCIS H. ALLEN.

West Roxbury, Mass.
Feb. 14, 1913.

[The editor regrets exceedingly that in going through the press the clause, referred to was accidentally omitted from one of his quotations. He feels however that it in no way affects the point he was trying to make clear, i. e., that the one statement could not be called a misquotation of the other. Indeed in as much as the omission makes the two quotations *less* alike, it really weakens his contention.

As the discussion on Concealing Coloration has already been unduly prolonged it seems desirable to close it at this point.

WITMER STONE.]